Taxing Energy Use 2018

United Kingdom

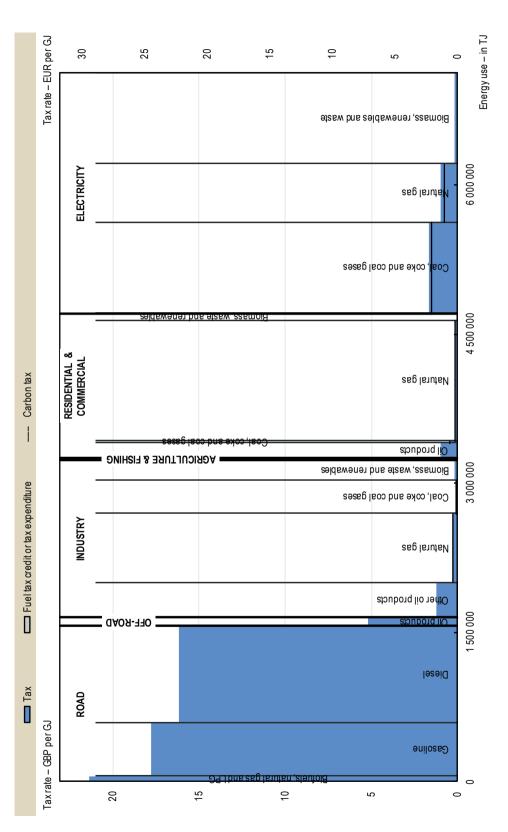
This note describes the taxation of energy use in the United Kingdom. It contains the country's energy tax profiles, followed by country-specific information to complement the general discussion in *Taxing Energy Use 2018* (OECD, 2018). The note contains four energy tax profiles for the United Kingdom:

- Figure 1: Effective tax rates on energy use in national currency and EUR/GJ, 2015, including electricity output taxes and energy use from biomass
- Figure 2: Effective tax rates on energy use in national currency and EUR/tCO₂, 2015, including electricity output taxes and energy use from biomass
- Figure 3: Effective tax rates on energy use in national currency and EUR/tCO₂, 2015, excluding taxes on electricity output, including carbon emissions from biomass
- Figure 4: Effective tax rates on energy in national currency and EUR/tCO₂, 2015, excluding taxes on electricity output and carbon emissions from biomass

The main insights from the second vintage of the *Taxing Energy Use* database, including a systematic comparison of patterns of the taxation of energy use across countries, sectors and fuels are available in *Taxing Energy Use 2018* (OECD, 2018) at: http://oe.cd/TEU2018.

1. Energy tax profiles for The united Kingdom

Figure 1. Effective tax rates on energy use in national currency and EUR/GJ, 2015, including electricity output taxes and energy use from biomass



 $366\,000$ Carbon emissions from energy use – in $1000\,\mathrm{tCO}_2$ Taxrate - EUR per tonne of CO₂ 450 400 350 300 250 200 150 100 20 Biomass and waste Natural gas ELECTRICITY Figure 2. Effective tax rates on energy use in national currency and EUR/tCO₂, 2015, including electricity output taxes and carbon emissions from biomass Coal, coke and coal gases Biomass and waste RESIDENTIAL & COMMERCIAL Natural gas 274 500 Carbon tax Coal, coke and coal gases Oil products ■ AGRICULTURE & FISHING Biomass and waste Coal, coke and coal gases 183 000 Euel tax credit or tax expenditure NDUSTRY Natural gas Oil products Oil products (predominantly) OFF-ROAD 91500 Diesel ROAD Tax rate - GBP per tonne of CO₂ Tax Gasoline 0 350 300 250 200 150 100 20

Taxrate - EUR per tonne of CO₂ ELECTRICITY Figure 3. Effective tax rates on energy use in national currency and EUR/tCO₂, 2015, excluding taxes on electricity output, including carbon emissions from biomass RESIDENTIAL & COMMERCIAL Carbon tax **SERICULTURE & FISHING** Euel tax credit or tax expenditure NDUSTRY OFF-ROAD Oil products (predominantly) ROAD Tax rate - GBP per tonne of CO₂ Tax 350 300 250 200 150

450

400

350

300

250

200

150

100

20

Natural gas

Biomass and waste

Coal, coke and coal gases

Biomass and waste

Natural gas

Oil products

Natural gas

Oil products

Diesel

Gasoline

20

100

Biomass and waste

Coal, coke and coal gases

274 800

183 200

91600

0

 $366\,400$ Carbon emissions from energy use – in $1000\,\mathrm{tCO}_2$

Tax rate - EUR per tonne of CO₂ Carbon emissions from energy use – in $1000\,\mathrm{tCO_2}$ 400 350 300 250 200 150 001 20 Natural gas ELECTRICITY Figure 4. Effective tax rates on energy use in national currency and EUR/tCO₂, 2015, excluding taxes on electricity output and carbon emissions from biomass Coal & coke RESIDENTIAL & COMMERCIAL Natural gas 254 700 Carbon tax Coal, coke and coal gases Oil products MASIE & FISHING -Coal, coke and coal gases **NDUSTRY** 169 800 Euel tax credit or tax expenditure Natural gas Oil products OFF-ROAD Oil products (predominantly) 84 900 Diesel ROAD Taxrate - GBP per tonne of CO₂ Tax Gasoline 0 300 20 250 200 150 00

2. Country-specific notes

This note describes the taxation of energy use in the United Kingdom. It contains the country's energy tax profiles, accompanied by country-specific information to complement the general discussion in *Taxing Energy Use 2018* (OECD, 2018). Tax rates are those applicable in April 2015, energy use data are for 2014.

The data shown in the energy tax profiles is from the OECD's *Taxing Energy Use* (TEU) Database. More detail on the TEU Database, the calculation of effective tax rates on energy use and the interpretation of the energy tax profiles can be found in *Taxing Energy Use 2018* (OECD, 2018).

The United Kingdom participates in the European Union emissions trading system (ETS), not shown in the energy tax profiles.¹

Energy and carbon taxes

Energy and carbon taxes in the United Kingdom are levied within the framework of the 2003 EU Energy Tax Directive, which sets minimum rates for the taxation of energy products in member states. Within this framework, the main taxes on energy use in the United Kingdom are the following:

- The Fuel Duty applies to oil products and natural gas use across all sectors, except when used to generate electricity.
- The Climate Change Levy (CCL) applies to LPG, natural gas and coal and coke products outside of the transport sector, except when used to generate electricity.
- The Carbon Price Support (CPS) applies to oil products, natural gas and coal and coke products for electricity generation.
- Electricity output is taxed at a uniform rate (per MWh).

The rates at which these taxes apply can further differ across fuels and different users, as described below.

These taxes are included in the energy tax profiles of the United Kingdom, but the tax on electricity output is only included when separately indicated (see below). Where more than one tax rate applies to an energy user or fuel, the energy tax profile shows their sum.

Effective tax rates on energy use for different fuels and users

The tax rates on different fuels and uses are linked to the United Kingdom's energy use² to calculate effective tax rates on energy use (in GBP/TJ and EUR/TJ) or CO₂ emissions from energy use (in GBP/tCO₂ and EUR/tCO₂). Energy use and the CO₂ emissions associated with it are shown for six economic sectors: road transport, domestic offroad transport, industry, agriculture and fishing, residential and commercial, and electricity.

The energy tax profiles (Figures 1 and 2) of the United Kingdom show effective tax rates for different fuels and uses in terms of the fuels' energy and carbon content, respectively. Figures 1 and 2 include energy use and carbon emissions from biomass and they show output

^{1.} The OECD's Effective Carbon Rates contains information on emissions trading systems.

^{2.} Data on energy use is taken from the IEA's *Extended World Energy Balances*, see Chapter 1 of *Taxing Energy Use 2018* (OECD, 2018) for additional detail.

taxes on electricity. Figure 3 is identical to Figure 2, except that taxes on electricity output are excluded. Figure 4 excludes carbon emissions from biomass and taxes on electricity output.

- Of the six economic sectors, the **road** sector is taxed at the highest rates, both in terms of the fuels' energy and carbon content. Within the road sector, biofuels are taxed at the highest effective tax rate, gasoline is taxed at a lower effective rate in terms of TJ and in terms of CO₂. Diesel and LPG are taxed at a lower effective rate than biofuels and gasoline. Biofuels are taxed at the same statutory rates as their fossil fuel equivalents.
- Fossil fuels used in the **off-road** sector are taxed, but at lower effective rates than the fuels used for road transport. Fuel oil and diesel used for domestic navigation, as well as kerosene used for domestic aviation, are untaxed.
- Fossil fuels used in the **industry** and the **residential and commercial** sectors are taxed by both the fuel tax and the CCL. The following reduced rates and exemptions are included in data shown in the energy tax profiles:
 - Fuels used for combined heat and power (CHP) generation are untaxed;
 - The CCL does not apply to LPG, natural gas and coal and coke when used in metallurgical and mineralogical processes. Based on the sources listed below, this exemption is included as applying to the non-metallic minerals, non-ferrous metals and iron and steel industrial sectors;
 - Kerosene used for heating purposes is untaxed.
- Fossil fuels used in the **agriculture and fishing** sector are taxed at the same rates as other non-road sectors.
- Diesel, fuel oil, LPG, natural gas and coal and coke used to generate **electricity** are taxed at reduced rates compared to if used for heating and processing purposes. Electricity output is taxed.

Reported tax expenditures and rebates

The following tax expenditures are included in the *Taxing Energy Use* data for the United Kingdom:

- The Fuel Duty and the CPS do not apply to fuels used in combined heat and power (CHP) generation.
- The CCL does not apply to LPG, natural gas, coal and coke and electricity generation when used in metallurgical and mineralogical processes.

Reported tax expenditures or rebates might be averaged with tax rates on other energy uses, in which cases they are not visibly identifiable in the graphical profile. Additional detail on the treatment of tax expenditures is in Chapter 1 of the TEU companion.

The following tax expenditures are not included in the TEU Database due to a lack of information about the amount of energy use and carbon emissions concerned:

- Participants in Climate Change Agreements pay reduced CCL rates;
- An electricity tax exemption when produced from certain renewable sources.

Reported tax expenditures or rebates might be averaged with tax rates on other energy uses, in which cases they are not visibly identifiable in the graphical profile. Additional detail on the treatment of tax expenditures is available in Chapter 1 of *Taxing Energy Use 2018*.

Sources

The main insights from the second vintage of the *Taxing Energy Use* database are analysed in:

OECD (2018), *Taxing Energy Use 2018 – Companion to the Taxing Energy Use Database*, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264289635-en.

Apart from the sources included in *Taxing Energy Use 2018* (OECD, 2018), and consultation with national delegates, the following country-specific sources were used:

- UK Government (undated), "Extimated costs of the principal tax expenditures and structural reliefs" https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/487119/Dec15 expenditure reliefs Final.xlsx.pdf.
- UK Government (undated), "Climate Change Levy Rates", https://www.gov.uk/government/publications/rates-and-allowances-climate-change-levy/climate-change-levy-rates.
- UK Government (undated), "Fuel Duty reliefs", https://www.gov.uk/guidance/fuel-duty-reliefs.